City of Springdale

STORMWATER

MANAGEMENT PLAN

Prepared by:

City of Springdale

Department of Engineering and Technical Services

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City of Springdale

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CITY OF SPRINGDALE
STORMWATER MANAGEMENT PLAN

Background and Context

The Springdale Stormwater Management Plan (Stormwater Plan) has been developed to provide policy and management guidance for activities affecting stormwater throughout the City of Springdale. It is intended to help the City fulfill certain State and Federal water quality requirements, and to meet local water resources management objectives. Through the implementation of the policies and management practices embodied in the Stormwater Plan over time, Springdale hopes to preserve urban stormwater quality that negatively impacts local rivers and streams, and to develop and preserve the urban drainage infrastructure in a manner that meets the community's needs for years to come.
While the State and Federal regulatory programs place significant emphasis on improving water quality and the health of Arkansas's watersheds, Springdale, as part of the Illinois River and Beaver Lake Watersheds further emphasizes the need for local management of urban stormwater and waterways. It becomes even more important that management of these resources occur in a manner that minimizes destructive long-term impacts to drainage infrastructure and the natural features that help protect water quality and control flooding.

Description of the Permit Area

The City of Springdale "The City" currently serves a population of 73,123 people (2010) within the city boundaries. The geographic boundaries of the MS4 plan are the City limits and the service area for stormwater planning encompasses approximately 48 square miles. The City has complete authority and responsibility for planning, building, operating, maintaining and regulating the stormwater drainage system within the city limits. Therefore, the MS4 NPDES permit for which this MS4 plan is submitted covers only the area within the City limits. The City lies at the upper east and north portion of the Illinois River Watershed. The area includes Spring Creek, Brush Creek, Little Wildcat Creek and Clear Creek and the tributary streams of the aforementioned streams. Additionally, a small portion of the City's eastern boundaries drains to Friendship Creek and its tributaries which drain to the Beaver Lake Watershed. In 2003-2004, the Springdale Planning Department began to review the Federal and State regulatory programs, with which the City must comply. In 2005, the City Council endorsed the proposed addition of Chapter 107 to the City Ordinances and the desired long-term outcomes that have served as a guide for the City's efforts to develop this Stormwater Plan and other related water resources management efforts. The approved revised Chapter 107 Stormwater Ordinance has added details and clarity to the Ordinance requirements and mandates certain requirements for enforcement purposes. The City's stormwater management practices have evolved to include efficient and cost-effective approaches that reduce or eliminate stormwater pollution and working towards method to protect the riparian (stream bank) areas of open waterways. These approaches provide natural pollutant removal and stormwater management of system capacity, flood prevention and control. However, the City's revised Stormwater Plan is intended to provide comprehensive stormwater management guidance for the entire City organization to systematically cover the Six Control Measures.

Purpose, Scope and Areas of Focus

The purposes of the Stormwater Plan are threefold. First, the Stormwater Plan characterizes The City's entire stormwater drainage system, including both the open and piped systems and their connections to the streams. This characterization is necessary to address relevant State and Federal regulatory requirements and it provides baseline information on which to develop focused stormwater management strategies.

Second, the Stormwater Plan establishes goals, policies, and implementation actions that will achieve the City's long-term objectives in a way that is understandable to the public, usable by City staff, and meets

regulatory needs. Finally, the Stormwater Plan establishes a means for measuring, reporting, and adaptively managing the City's water resources, by presenting benchmarks that will ensure meaningful progress, as well as ensuring compliance with applicable laws and permit requirements.

Scope and Areas of Focus:

The Stormwater Plan addresses stormwater quality management policies and management practices that are, and/or will be implemented in the City. The scope of the Stormwater Plan is determined primarily by the Federal MS4 permit requirements, but is intended to address local water resources issues as well. These areas of focus in the Stormwater Plan include:

- **ADEQ-required Municipal Separate Storm Sewer System (MS4) Plan elements.**

- **Pollution incidents and unlawful (illicit) discharges to the City's stormwater drainage system.** These discharges can be systematic (recurring) or episodic (occasional or one-time) discharges, and include pollutant runoff from parking lots, discharges from industrial outfalls, accidental spills, vehicular accident discharges, poor construction site management, and a variety of ways people dump pollutants into street gutters or catch basins.

- **On-site management of stormwater to reduce the quantity of stormwater and pollution entering the drainage system.** Similar to illicit discharges, events that cause flooding, system surcharges, or ongoing pollutant loading can occur downstream from the city limits, and originate from a variety of causes. These include inadequacies in the type and design of infrastructure, inadequate maintenance, insufficient erosion and/or sediment control practices, and increases in impervious area without provision for on-site infiltration of stormwater into the ground. The City regulates these issues through implementation of the Springdale Municipal Code within the city limits.

- **Reduction and prevention of pollution at City facilities and resulting from City activities and business practices.** The City provides services with a potential for creating water pollution, erosion, and sedimentation. These include field activities such as ditch cleaning and excavation/maintenance activities, fertilizer and nutrient management, bug and weed chemicals management, as well as activities at City facilities, such as vehicle washing and maintenance, painting, and material handling such as street sweeper dumping and processing. The Federal NPDES Stormwater Program requires the City to implement pollution prevention practices that reduce or eliminate stormwater pollution from City activities. ***Beyond this regulatory motivation, it is important that the City lead by example in areas where similar practices and behaviors from citizens and businesses are required***.

Public education geared toward broad community stewardship of water resources.

The Federal NPDES Stormwater Program places significant emphasis on public education as part of the long-term solution to stormwater pollution. As such, education is a required element of the Stormwater Plan. The long-term success of the City's efforts will hinge on increased awareness and stewardship throughout the community.

The Stormwater Plan will result in formal, organized educational and outreach efforts that are targeted broadly throughout the metropolitan area. Many of these efforts are most effectively approached on a Northwest Arkansas MS4 basis, through cooperative efforts with the University of Arkansas Extension Service.

- **Public awareness and involvement in the City's Stormwater management program.** Broad awareness and participation in the development and implementation of the Stormwater Plan by residents and local area businesses is a key component to ensure effectiveness of the Stormwater Plan. The Stormwater Plan includes a public involvement component in its development that meets the Federal NPDES program.

- **Targeted capital improvements and maintenance programs to improve water quality and restore high priority areas.** Concurrent with the development of the Stormwater Plan, the City continues to evaluate a Stormwater Facilities Master Plan, which will update the City's needs assessment and Capital Improvement Program (CIP) for future drainage infrastructure. The Stormwater Plan will support development and implementation of the Stormwater Facilities Master Plan and CIP in a manner that helps meet the City's water quality objectives.

The Federal rules and, therefore, ADEQ's permit requirements, direct that the City's MS4 plan address six minimum areas, which are termed "Minimum Control Measures." These areas are broadly titled in the rules as follows:

- Public Education and Outreach on Stormwater Impacts;
- Public Involvement/Participation;
- Illicit Discharges Detection and Elimination;
- Construction Site Stormwater Runoff Control;
- Post-Construction Stormwater Management for New Development and Redevelopment;
- Pollution Prevention/Good Housekeeping For Municipal Operations;

Under each of these areas described above, the City's MS4 plan must contain the following information:

- The structural and non-structural Best Management Practices (BMPs) that the permittee or another entity will implement for each of the stormwater Minimum Control Measures;
- The measurable goals (Benchmarks) for each of the BMPs including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action; and
- The person or persons responsible for implementing or coordinating the BMPs for the permittee's MS4 plan.

In addition to the requirements listed above, the permittee must provide a rationale for how and why each of the BMPs is selected and measurable goals for the permittee's stormwater management program.

Stormwater Best Management Practices (BMPs) is a *catch-all* term for approaches to managing stormwater that reduce negative impacts of runoff on the receiving streams. While the term has become widely used by the regulatory agencies and throughout the stormwater management industry, it does ***not*** imply that each BMP is necessarily the "Best" at achieving a particular stormwater management objective. BMPs are alternatives to practices that reduce the water quality and flow management functions and benefits of the open drainage system such as piping, filling or hardening open drainage ways. BMPs include, but are not limited to:

- physical structures or created natural features such as wetlands or ponds that improve water quality and/or attenuate flow;
- maintenance or construction practices that prevent erosion, control sedimentation, and reduce pollution entering runoff;
- educational strategies that inform the public, developers, business/industry, etc. on stormwater pollution prevention;
- regulations and enforcement programs that protect water quality;
- protection of open drainage ways for stormwater treatment and conveyance, and maintaining adjacent (riparian) buffers to provide natural stormwater filtration, cooling and long-term channel stability and other stormwater management functions; and the avoidance of piping, filling, or deteriorating the condition of open drainage ways.

Overview of Springdale's Stormwater Drainage Systems

The City is responsible for implementing surface water management activities within its boundaries, including the planning, design, construction, operation, and maintenance of the stormwater drainage system. The City performs all operation and maintenance on the public drainage system that is designed and constructed to City standards and located within easements or rights-of-way, or real property that has been conveyed or dedicated to the City. The City also maintains open channels throughout the City, and public outfalls to natural streams within the City's jurisdiction. The geographic area covered by this Plan includes approximately 48 square miles inside the Springdale city limits. The City's urban area's stormwater drainage systems also include some private stormwater management facilities that help moderate and reduce the volume and pollutant content of stormwater leaving private property and entering the public stormwater drainage system and/or local streams.

Stormwater Drainage Basin Characterization

The City's stormwater drainage system has five major drainages, Spring Creek, Brush Creek, Little Wildcat Creek, Clear Creek and Friendship Creek. The City is further broken down into several separate tributaries to these streams. A drainage basin can be described as a geographic area within which stormwater drains from many small systems converging on a larger drainage way, ultimately culminating in outfalls to the five major drainage ways. The character and condition of the drainage ways varies significantly throughout the basins, depending on surrounding land uses and contributing drainages.

GOALS, POLICIES, & IMPLEMENTATION ACTIONS

This section provides overall guidance to the City in performing stormwater management activities in a manner consistent with State and Federal laws, while meeting local goals and the long-term outcomes the City hopes to achieve. The following goals are derived from long-term key outcomes that have been reviewed. The policies provide specific direction, consistent with the local goals, and State and Federal requirements. Implementation actions include BMPs discussed in detail in the MS4 plan and other actions needed to achieve local objectives. The work plan for completion of implementation actions is in the Stormwater Plan Implementation Action Summary.

GOAL 1: *Protect citizens and property from flooding.*

Policies

1.1 Maintain surface drainage in the City to reduce the threat of flooding, through proper maintenance of the City's stormwater drainage system infrastructure, with practices that are protective of water quality.
1.2 Through the development review process, ensure that new development incorporates adequate stormwater management infrastructure to avoid downstream capacity and water quality problems.
1.3 Preserve open stormwater drainage infrastructure where feasible, to best accommodate peak storm flows, maintain flood storage capacity, and promote water quality.
1.4 Adhere to standards, policies, and practices which comply with Federal Emergency Management Agency (FEMA) Flood Management Program requirements to insure that the City maintains flood insurance coverage under this program.

Implementation Actions

- 1a. Continue evaluation of City maintenance practices and implements appropriate BMPs to assure that the City adequately maintains the stormwater drainage system capacity in an environmentally responsible manner.
- 1b .Evaluate and refine the City's drainage program, including educational outreach, inspection, and enforcement components to reduce the negative stormwater impacts from land alteration, erosion, sedimentation, and excessive runoff.

- 1c. Continue adding to the City Drainage Master Plan to assess the City's stormwater drainage system and capacity needs, and identify capital improvements and other measures necessary to maintain adequate system capacity for planned community growth.
- 1d. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to ensure that the public is aware of the importance of preventing pollution from entering the streams and water bodies of the State.
- 1e. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to minimize or eliminate erosion and sedimentation in the stormwater drainage system.
- 1f. Implement BMPs consistent with NPDES Minimum Control Measure #5, Post-Construction Stormwater Management for New Development and Redevelopment, to ensure that new development is in compliance with flow-regulating management practices, such as detention ponds, on-site stormwater storage, etc.
- 1g. Implement BMPs consistent with NPDES Minimum Control Measure #6, Pollution Prevention/Good Housekeeping for Municipal Operations, to ensure adequate maintenance of the stormwater system.

GOAL 2: *Improve surface and sub-surface waters for aquatic life and other beneficial uses.*

Policies

2.1 The City will monitor and implement practices and regulatory programs with the objective of improving surface and groundwater quality to, at a minimum, address State water quality standards, adequately protect threatened and endangered wildlife, and address the State beneficial use guidelines.

2.2 The City will maintain its open channels and waterways in a manner that is protective of their natural stormwater management and habitat functions for the benefit of the citizens of the City, local wildlife, including threatened or endangered species, and future generations.

Implementation Actions

- 2 a. Promote pollution protection educational efforts, including signage, development project review, and public outreach.
- 2. b. Enhance erosion and illicit discharge detection and compliance efforts, including permitting and Code enforcement.
- 2. c. Implement BMPs consistent with NPDES Minimum Control Measure #1, Public Education and Outreach on Stormwater Impacts, to enhance citizens' and businesses' knowledge regarding water quality regulations as well as the benefits to the community from properly functioning waterways.
- 2. d. Implement BMPs consistent with NPDES Minimum Control Measure #3, Illicit Discharges Detection and Elimination, to eliminate or minimize toxic discharges from business and industry.
- 2. e. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to minimize sedimentation and channel degradation from construction sites.
- 2. f. Implement BMPs consistent with NPDES Minimum Control Measure #5, Post-Construction Stormwater Management for New Development and Redevelopment, to ensure long-term functioning of newly-developed sites.
- 2. g. Implement BMPs consistent with NPDES Minimum Control Measure #6, Pollution Prevention in Municipal Operations, to ensure that the stormwater drainage system is maintained in properly functioning condition.

GOAL 3: *Preserve and maintain surface waters, wetlands, and riparian areas.*

Policies

3.1 Through the development review process, the City will ensure that development is protective of significant open waterways, wetlands, and riparian areas.

3.2 The City will implement permitting programs, educational outreach, compliance inspections and enforcement activities as needed to reduce erosion, sedimentation, illicit discharges, and other pollution impacts to the City's waterways.

Implementation Actions

- 3. a. The City will review and refine its drainage program, which addresses erosion, sedimentation, and the impacts of land alteration, including permitting, inspections, technical educational and outreach, and enforcement.
- 3. b. The City will review development proposals for impacts on open drainage ways, wetlands, and riparian areas, and protect the functions and benefits of these areas as provided for in the Code of Ordinances and Engineering Drainage Criteria Manual.
- 3. c. The City will work cooperatively with citizens, businesses, and agencies to protect and improve surface waterways, seek opportunities for stewardship partnerships, further enhance educational opportunities, and continue participation in intergovernmental work groups.
- 3. d. The City will implement and continue to refine/improve BMPs for all City activities with potential to impact water quality and/or the functions of waterways, wetlands, and riparian areas.
- 3. e. Implement BMPs consistent with NPDES Minimum Control Measure #4, Construction Site Stormwater Runoff Control, to reduce or eliminate sedimentation from construction sites as a contributor to poor water quality and quantity management.
- 3. f. Implement BMPs consistent with NPDES Minimum Control Measure #5, Post-Construction Stormwater Management for New Development and Redevelopment, so new development at a minimum maintains the functioning of the stormwater drainage system, and doesn't contribute to future degradation.
- 3. g. Implement BMPs consistent with NPDES Minimum Control Measure #6, Pollution Prevention/Good housekeeping for Municipal Operations, which is critical to maintaining properly functioning wetland and riparian areas and open channels.

GOAL 4: *Citizens, businesses, and industries understand the need to protect water quality.*

Policies

4.1 The City will develop targeted education and outreach and technical assistance programs regarding practices and obligations for keeping debris and pollutants out of the stormwater drainage system and train stakeholder groups in appropriate erosion control and sediment prevention practices, as well as stormwater management BMPs.

4.2 The City will seek to form partnerships with neighborhoods or groups interested in providing stewardship of local waterways.

4.3 The City will develop, implement, and enforce appropriate building, design, and Municipal Codes to address water quality compliance issues, including pollution, habitat, and aesthetic issues, to encourage the development of urban waterways that are positive amenities in the community.

Implementation Actions

- 4. a. The City will continue to support outreach and education efforts regarding water quality, riparian and wetland areas, including business, contractor, and developer outreach programs to educate these parties about their impacts on stormwater quality.
- 4. b. Continue to maintain enforcement and compliance activities, including inspections, technical assistance, and Code enforcement.
- 4. c. Implement BMPs consistent with NPDES Minimum Control Measure #1 and #2, Public Education and Outreach on Stormwater Impacts, to engage the public in the efforts to create positive urban amenities.
- 4. d. Implement BMPs consistent with NPDES Minimum Control Measure #3, Illicit Discharges Detection and Elimination, to ensure that waterways are safe, meet State water quality standards, and can function as positive amenities.

GOAL 5: *Urban drainage ways become community amenities.*

Policies

5.1 The City will conduct education and outreach activities to appropriate target groups to increase understanding of the importance of maintaining safe and clean drainage ways, and to seek volunteers willing to be caretakers for water features near them.

5.2 The City will, through the Code of Ordinances, protect existing significant open waterways and encourage site planning and landscaping that enhances the attractiveness and natural functions of the water features.

5.3 The City will maintain urban drainage ways in a manner that provides for safe and attractive conditions within the limits of its fiscal constraints.

Implementation Actions

- 5. a. Enhance the City's erosion control program, including educating developers and the community regarding the positive aspects of open waterways to promote acceptance, and integrating effective compliance and enforcement components.
- 5. b. Provide adequate funding within the City's restraints for public maintenance of the stormwater drainage system, and ensure ongoing maintenance of private stormwater features through development agreements.
- 5. c. Increase educational outreach to schools to increase awareness of children regarding the need to keep litter and pollutants out of urban drainage ways.
- 5. d. Implement all six of the NPDES Minimum Control Measure BMPs. Implementing all of the provisions of the MS4 plan will ultimately result in improved water quality and quantity management, improved habitat and resource protection, and, ultimately, enhance urban waterways as desirable community amenities.

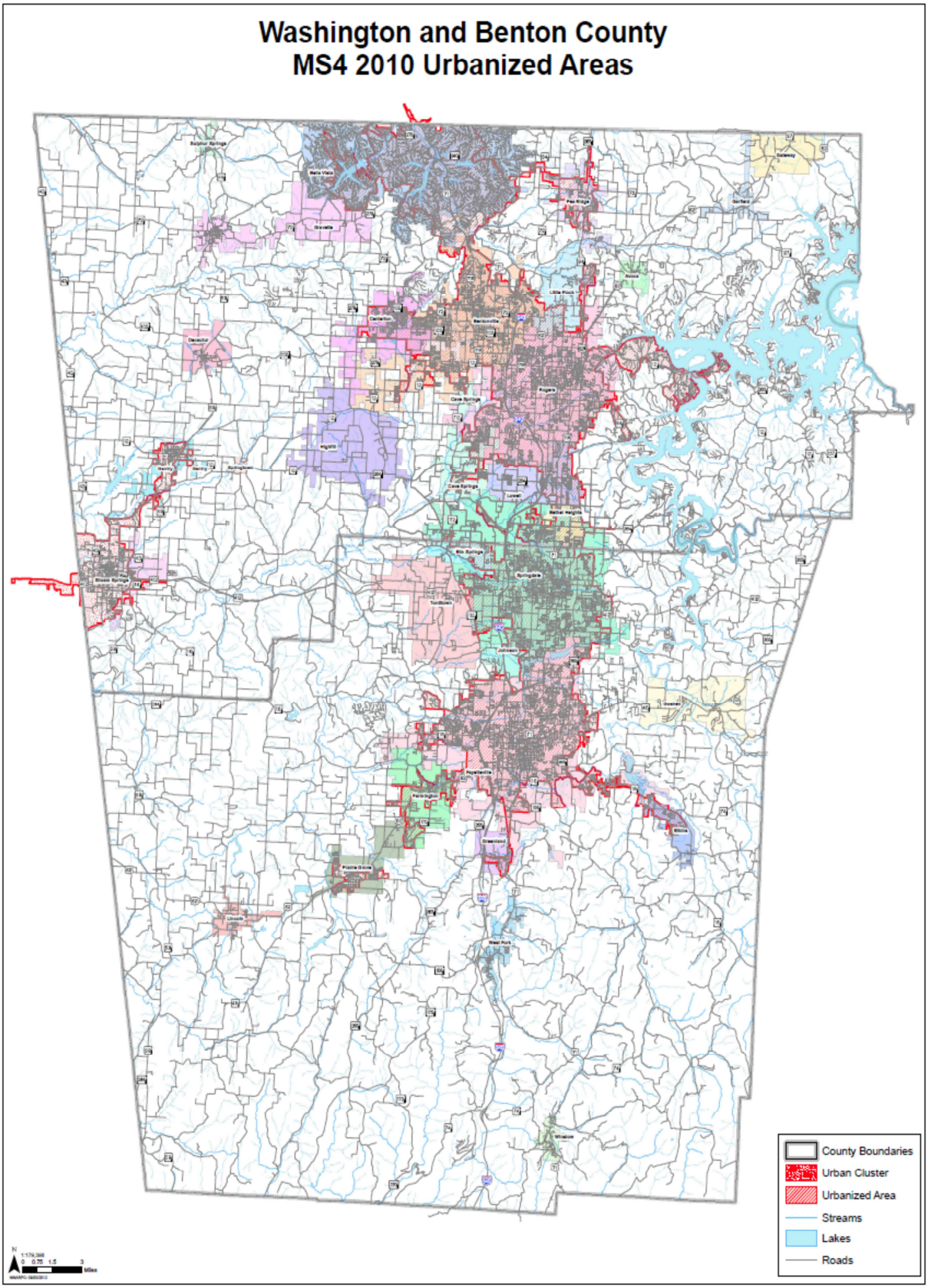
Springdale's NPDES MS4 Plan

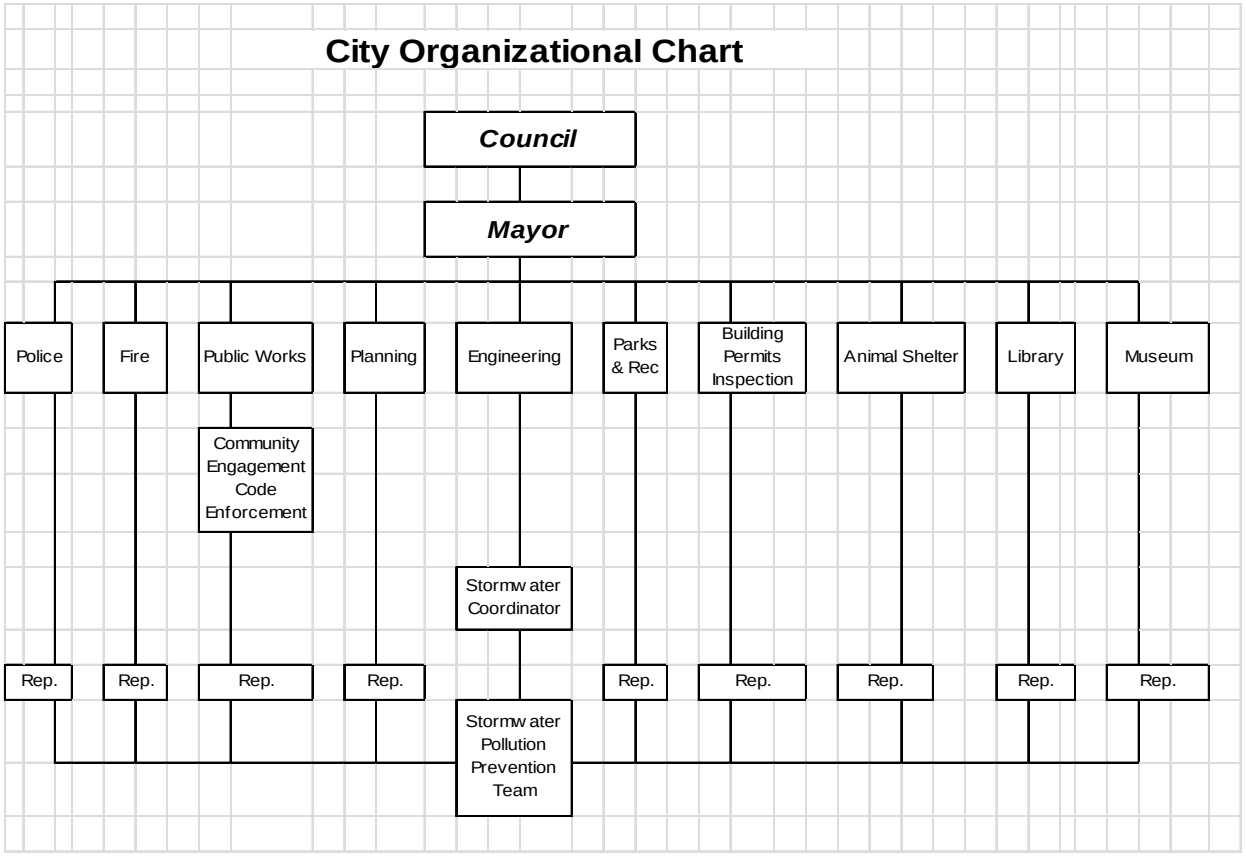
City Stormwater Management Program - Responsible Parties:

The City is responsible for implementing surface water management activities within its boundaries, including the planning, design, construction, operation, and maintenance of the stormwater drainage system. In response to the NPDES Phase II stormwater requirements, the City has developed a MS4 plan addressing each of the six required Minimum Control Measures, as specified in the Federal-NPDES Phase II rules. The City's stormwater management program is the responsibility of *Engineering Department and the Planning and Community Development Department*. However, the implementation of the City's MS4 plan will extend throughout the City organization by implementing a Stormwater Pollution Prevention Team with representatives from Planning, Public Works, Parks and Recreation, Building Permit and Inspection, Community Engagement, Museum, Library, Fire Department and Police. Each Department's

task would be recognizing stormwater issues of their facility, the field work they do, and documenting data for both positive and negative events that are stormwater related that previously went unnoted. Negative findings will be enforced by various Departments of City Enforcement and the City Code of Ordinances. The Northwest Arkansas Regional Planning and the University of Arkansas Cooperative Extension Service has contracted with the City to be responsible for the development and implementation of the public education efforts even though the City recognizes their services are only partial coverage and the City is ultimately responsible for these control measures. Public Education and Involvement would also be encouraged with each department within their crew members, families and neighbors. Fliers, bulletins, and various stormwater media are intended to be made available at the Library and Museum as well as message boards for comments from the general public.

Washington and Benton County
MS4 2010 Urbanized Areas





NPDES Phase II BMP Requirements:
Specific BMPs are proposed for each Minimum Control Measure, which are intended to support the reduction of discharges of pollutants in stormwater runoff to the maximum extent practicable (MEP) as required by the Federal-NPDES Phase II rules. In this section, a summary sheet is provided for each Minimum Control Measure, which includes a list of the selected BMPs, the rationale for their development and selection, and a summary of the measurable goals and implementation schedule. The summary sheet is followed by a fact sheet for each of the selected BMPs. Together, the summary sheets and the BMP fact sheets provide the following information in accordance with the Federal rules:

- A list of the responsible parties for the BMP implementation;
- A brief description of the BMP;
- A description of existing conditions
- The proposed MS4 plan activities;
- Measurable goals; and
- An implementation schedule.

The BMP development/implementation schedule shows when certain activities will be completed on a yearly basis. The NPDES Phase II rules provide for a five-year continuation and implementation schedule starting from August 1, 2014 and running through July 31, 2019.

A. Minimum Control Measure #1:
Public Education and Outreach on Stormwater Impacts

Permit Requirements: Regulation 40 CFR 122.34(b)(1): "The permittee must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff."

Decision Process

The City of Springdale participates in monthly meetings of the NWA Stormwater Compliance Group. We also have representation on the NWA Stormwater Education Steering committee (public membership comprised of diverse backgrounds/interests) convenes at least once each year to review and evaluate program accomplishments and plan next steps. Both groups provide the localized input used to identify critical stormwater issues and target audiences and program methods and public relations strategies.

Applicable Public Education/Outreach BMPs

Develop and distribute electronic and printed educational materials

Input from both the MS4 Stormwater Compliance Group and Education Steering Committee guides the emphases of electronic and printed educational materials. Once topics have been identified, materials will be developed, adapted, and/or gathered for distribution at public meetings, in support of presentations, and with educational displays. Examples may include fact sheets, podcasts, e-learning modules, website content, newsletters, press releases, and PSAs.

Measureable Goals:

A minimum of 20 electronic and printed educational materials will be developed.

The number of educational materials distributed will be documented.

MS4 Stormwater Compliance Group and Education Steering Committee meetings attendance will be documented.

Create displays and staff educational booths

Displays highlighting the annual topics of emphasis will be created and set up/staffed at libraries, banks, schools, local festivals, county fairs, etc.

Measureable Goal:

Stormwater displays will be created and used at a minimum of 5 events/locales

Conduct stormwater programs for adult audiences

Educational presentations will be given to illustrate stormwater dynamics, identify potential pollutants and pathways, describe techniques to reduce stormwater pollution and encourage voluntary BMP implementation according to the annual topic/audience emphases outlined in the SWMP.

Measureable Goal:

At least 10 stormwater education programs will be conducted for adult audiences

Conduct hand-on youth stormwater/water quality education programs

Educational programs for school youth will focus on the water cycle, watersheds, stormwater dynamics, water quality and pollution prevention using the EnviroScape surface runoff model, groundwater simulator, hands-on exercises from Project WET, Project WILD, and Project

Learning Tree and creek side classrooms. Programs conducted will support the Arkansas State Frameworks/Common Core required curriculum.

Measureable Goals:

At least 20 stormwater education programs will be conducted for youth audiences

Responsible Party

The Northwest Arkansas Regional Planning and the University of Arkansas Cooperative Extension Service has contracted with the municipality to be responsible for the development and implementation of the public education efforts. A copy of that agreement is included in this plan.

Performance Standard:

Urban stormwater outreach/education programs will reach at least 34,044 residents (50% of the urbanized area population).

Minimum Control Measure #1: 5 Year Implementation Schedule

2015	2016	2017	2018	2019
Topic Emphases: Yard and garden management	*Topic Emphasis:* Automotive maintenance	*Topic Emphasis:* Septic system and pool maintenance	*Topic Emphasis:* Litter/trash management	*Topic Emphasis:* Irrigation management to minimize runoff/ disconnecting impervious surfaces
Target Audience: Homeowners and garden enthusiasts	*Target Audience:* Vehicle owners	*Target Audience:* Homeowners with septic systems/ pools	*Target Audience:* General public, homeowners	*Target Audience:* Homeowners and businesses with irrigation systems and guttering
Rationale: Improper yard waste disposal can clog storm drains and excess fertilizer and pesticide applications can contaminate stormwater with nutrients and chemicals	*Rationale:* Leaking automotive fluids and washing vehicles on paved surfaces allow oil, grease and chemicals to be carried in stormwater to local waterways	*Rationale:* Malfunctioning septic systems, improper handling and disposal of pool chemicals and emptying chlorinated pool water can impact stormwater quality	*Rationale:* Improper handling and disposal of litter can allow it to enter the storm drain system and impact stormwater quality	*Rationale:* Efficient irrigation conserves water and prevents it from entering the storm drain system while disconnecting impervious surfaces minimizes runoff by

B. Minimum Control Measure #2:

Public Involvement/Participation

Permit Requirements: The permittee must, at a minimum, comply with State and local public notice requirements when implementing a public involvement/participation program.

Decision Process

The City of Springdale participates in monthly meetings of the NWA Stormwater Compliance Group. We also have representation on the Stormwater Education Steering committee (public membership comprised of diverse backgrounds/interests) convenes at least once each year to review and evaluate program accomplishments and plan next steps. Both groups provide the localized input used to identify critical stormwater issues and target audiences and program methods and public relations strategies.

Applicable BMPs

Engage Residents in Stormwater Policy Development

Input from both the MS4 Stormwater Compliance Group and Education Steering Committee guides the emphases of electronic and printed educational materials. Once topics have been identified, materials will be developed, adapted, and/or gathered for distribution at public meetings, in support of presentations, and with educational displays. Examples may include fact sheets, podcasts, e-learning modules, website content, newsletters, press releases, and PSAs. (This item to be tracked and documented within Public Education/Outreach, MCM #1)

Measureable Goals:

The number of educational/announcements materials distributed will be documented. (see MCM #1)

MS4 Stormwater Compliance Group and Education Steering Committee meetings attendance will be documented. (see MCM #1)

Train and Utilize Volunteer Educators

"Train-the-trainer" processes will be used to engage public volunteers and educators in teaching stormwater and pollution prevention (e.g. Benton and Washington County Master Gardeners, Master Naturalists, LakeSmart Leaders, etc.)

Measureable Goal:

At least 5 train-the-trainer programs will be conducted.

C*onduct Public Participation/Involvement Events*

Citizen and youth groups will participate in public involvement events (litter pick up, establishing demonstration rain gardens, planting riparian vegetation, stenciling storm drain inlets, etc.).

Measureable Goal:

At least 5 public participation events will be coordinated.

Responsible Parties

The jurisdiction is responsible for the development and implementation of the public involvement and participation efforts, utilizing the services of the University of Arkansas Cooperative Extension Service (contracted through the Northwest Arkansas Regional Planning Commission).

Performance Standard

At least 5 public participation and involvement activities will be conducted.

Minimum Control Measure #2:
5 Year Implementation Schedule

2015	2016	2017	2018	2019
Program Emphasis: Engage organizations (such as Master Gardeners, POAs and lawn care/landscaping professionals) to promote stormwater pollution prevention education	*Program Emphasis:* Engage HHW Collection Centers and automotive shops to promote their vehicle fluid collection	*Program Emphasis:* Partner with POAs, Health Department and watershed organizations to promote proper septic system function through inspections	*Program Emphasis:* Coordinate clean up events (potential locations: creek, lake, park, trail or roadway)	*Program Emphasis:* Partner with the Arkansas Irrigation Association to promote proper irrigation system use/maintenance
Target Audience: Homeowners, lawn care/landscaping professionals	*Target Audience:* Vehicle owners, automotive maintenance professionals	*Target Audience:* Homeowners with septic systems or swimming pools	*Target Audience:* MS4 residents	*Target Audience:* Homeowners and businesses with irrigation systems
Rationale: Improper management of grass clippings and leaves can clog storm drains and excess fertilizer and pesticide applications can contaminate stormwater with nutrients and chemicals	*Rationale:* Improper handling/ disposal of automotive fluids allow oil, gasoline and other vehicle fluids to be transported in stormwater to local waterways	*Rationale:* Malfunctioning septic systems, improper handling and disposal of pool chemicals and emptying chlorinated pool water can impact stormwater quality	*Rationale:* Improper handling and disposal of litter can allow it to enter the storm drain system and impact stormwater quality	*Rationale:* Efficient irrigation conserves water and prevents it from entering storm drain systems

C. Minimum Control Measure #3:
Illicit Discharges Detection and Elimination

Permit Requirements: The permittee must:

1. Develop, implement and enforce a program to detect and eliminate illicit discharges [as defined in 40 CFR §122.26(b)(2)] into the permittee's small MS4;
2. Continue developing a storm sewer system map, showing the location of all outfalls and the names and location of all waters that receive discharges from those outfalls;
3. To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and/or permit denials for non-compliance.
4. Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the permittee's system; include procedures for locating and prioritizing areas likely to have illicit discharges; procedures for tracing and removing the source; and procedures for program evaluation and assessment.
5. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and
6. Address the following categories of non-storm water discharges or flows (illicit discharges) if the permittee identifies them as significant contributors of pollutants to the permittee's small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR §35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, commercial on-the-lot car washing, commercial mobile car washing units, flows from riparian habitats and wetlands, de-chlorinated swimming pool discharges, and street wash water and discharges or flows from firefighting activities are excluded from the effective prohibition.
7. The permittee must also develop a list of other similar occasional incidental non-storm water discharges (e.g. non-commercial or charity car washes) that will not be addressed as illicit discharges. These non-storm water discharges must not be reasonably expected (based on information available to the permittee) to be significant sources of pollutants to the MS4, either because of the nature of the discharges or conditions the permittee have established for allowing these discharges to the permittee's MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive water bodies, BMPs on the wash water). The permittee must document in the permittee's storm water management program plan any local controls or conditions placed on the discharges. The permittee must include a provision prohibiting any individual non-storm water discharge that is determined to be contributing substantial amounts of pollutants to the permittee's MS4.
8. The permittee must develop a process to respond to and document complaints relating to illicit discharges.

Applicable City of Springdale BMPs

Illicit Discharge Detection and Elimination (IDDE):

IDDE1 - *Illicit Discharges Reporting and Tracking System*
Measureable Goals:
– Continue documenting the findings and method of eliminating illicit discharges located through surveys and public reporting.

IDDE2 - *Illicit Discharges Response and Enforcement*

Measureable Goals:
– Continue documenting the location, type of illicit discharge, response required and any enforcement administered.
IDDE3 - *Outfall Inventory, Mapping and data base.*

Measureable Goals:

– Continue adding new outfalls located complete with dry weather screening information to the database and storm sewer map.

IDDE4 - *Water Quality Monitoring for Illicit Discharges*

Measureable Goals:

– Continue the utilization of USGS for water quality monitoring. Document all illicit point and non-point sources located.

IDDE5 - *Citywide Illicit Discharge Detection and Elimination*

Measureable Goals:

– Continue documenting all illicit discharges referencing departments locating the illicit discharge. Document training activities for all City departments.

IDDE6 - *Non-Stormwater Discharge Assessment*

Measureable Goals:

– Continue documenting the location, type of non-stormwater discharge, response required and any enforcement administered

Rationale

The City selected the above six BMPs to address the permit requirements in the previous permit and has elected to continue using the BMPs due to a reasonable amount of certainty the BMPs have successful methods. Adjustments may be required over time to improve the measures. ***BMPs IDDE1*** and ***IDDE2*** provides for and describe the City's processes that respond to and document complaints regarding water quality, including illicit discharges, in fulfillment of Requirement **9** above.

IDDE1, reporting and monitoring, has several methods of presumed illicit spills, sightings and discharges to be reported. Most of the City department's personnel, while doing their daily jobs will report potential

illicit problem areas to the Stormwater Coordinator, handle through their department, or report to other departments with assessment, enforcement and or cleanup capabilities. The problem area will be investigated soon or immediately depending on the situation. Minor infractions will be brought to the owner's attention, followed up on, and an investigation report to the Illicit Discharge files complete with pictures and the investigation results. Major infractions will be brought to the owner's attention, followed up on, an investigation report filed, and enforcement protocol followed as per Chapter 107. Other larger incidents with water bodies, fish kills with unknown circumstances will be reported to State Fish and Wildlife and or the ADEQ for their expertise and water quality measurement capabilities. These two BMPs include phone numbers (and public knowledge of phone numbers of City Hall, Police Dispatch, and several other City numbers) for tips or complaints and protocols for the most efficient and effective follow-up actions in response to calls. Additionally, the continued developing City Stormwater Website will add another avenue for discharge complaints and sightings for public reporting.

The City's program to prohibit and enforce elimination of illicit discharges is described under ***BMP IDDE2*** addresses Requirements **1, 4, 7** and **8** above, regulatory authority for implementation and enforcement of the City's IDDE program and is provided in two ordinances, the Stormwater Ordinance (Chapter 107) and the Nuisance Prohibitions (Chapter 110). The IDDE section of Chapter 107 is inclusive of all types of illicit discharges and regulatory authority whereas Chapter 110 is inclusive of trash, leaves, grass clipping and other illicit material as being unlawful to dump into the City streets, curbs and inlets.

BMP Outfall Inventory, Mapping and Data Base are a project the City has begun, and will be completed year by year and maintained during the permit period in accordance with Requirement **2** above. The map was created by using GPS and ArcMap10 by a consulting engineering firm. The map is updated each year by the Engineering Department coordinating both dry weather screening and locating previously unmarked outfall locations by observing stream beds in search of IDDs, GPS-ing unmarked outfall locations and recording outfall information for the outfall. New development designs are developed on Civil Auto-Cad using survey crews for the platted area. Completed final new construction on ArcMap 10 shows streets inlets. New development tie-ins to existing storm drains or outfalls are transferred from the development drawings to the ArcMap 10 storm sewer map software program. The ArcMap 10 program aerial view is updated each year with a new year aerial view and shows the previous year of new development. The sanitary sewer map shows areas within the City limits with housing or commercial businesses that has no sanitary system and are on septic systems. These areas would have site investigations and dry stream observations for potential illicit discharges. Each system investigated would be logged by GPS and with a condition report, and scheduled for inspection the following year. Findings of illicit discharges would be brought to the owner or responsible person of the site to correct the problems or face additional City regulatory and enforcement criteria. Commercial and industrial sectors (manufacturing facilities, mechanic shops, junk car sites and restaurants) would also be prioritized recognizing the improperly handled waste products from these facilities have the potential of illicit discharges.***IDDE3***

BMP IDDE4 includes the monitoring program conducted by the City to identify and track the sources of illicit discharges, which will support compliance with Requirement **5** above. This BMP will recognize that Spring Creek is no longer on the 303(d) list but will continue to work towards identifying potential sources of the stream impairment. Contracts with USGS began during December 2009 to sample Spring Creek in four locations four times per year. In 2011 permanent continuous monitors were installed in two locations

on Spring Creek. The locations were chosen to subdivide the tributaries entering the Creek and the ongoing program can eventually define areas that are pollution providers. The target pollution is total phosphorus and sediment. Results of these samples will be on the USGS website. Additionally other suspected pollutants can be sampled for by USGS for and added cost beyond the contract. Requirements to inform the public regarding the hazards of illicit discharges is implemented through several of the public education BMPs such as Clean Water In to Stormwater Curb Drain and Door Hangers. And as mention above, illicit discharges will be part of the Springdale Stormwater Website. Activities conducted under ***BMP IDDE5*** shall be provided with the implementation of a Stormwater Pollution Prevention Team that will extend throughout the City organization with representatives from Planning, Public Works, Parks and Recreation, Building Permit and Inspection, Code Enforcement, Museum, Library, Fire Department and Police. Each Department's task would be education on recognizing illicit discharge issues of their facility, the field work they do, alerting other departments, and documenting data for both positive and negative events that is illicit discharge related that previously went unnoted. Negative findings will be enforced by various Departments of City Enforcement and the City Code of Ordinances. . ***BMP IDDE6*** and requirements **6** and **7**, addressing non-stormwater discharges, will require the City to assess illicit discharges, and determine if they adversely impact the stormwater system. If they are found to cause an adverse impact, appropriate management practices or regulations will be used. Dry weather screening, located by maintenance activities, citizens reporting or other means shall be tracked to their source if possible, sampled if the substance is not obvious and assessed for elimination requirements. Tracking may include associating the type of illicit discharge to certain facilities upstream. Based on the appropriate number of known facts, enforcement shall follow as per Chapter 107 requirements. Citizen hotline requirements are covered by public knowledge of phone numbers of City Hall, Police Dispatch, and several other City numbers. Complaints and tips phoned in regarding an incident are forwarded to the appropriate City personnel that handle the particular type situation. MS4 employees, businesses, industries and general public will be informed of the hazards associated with illicit discharges and improper disposal of wastes in conjunction with ***Control Measure #1*** and requirement **5**.

Responsible Parties

Engineering - Coordinate Management and Implementation of the IDDE Control Measure, respond and investigate citizen complaints and tips, assess and enforce as necessary.

Public Works - Recognizes illicit discharges and illegal dumping along streets, inlets, sewers, streams and water bodies and responds for the assessment and cleanup.

Community Engagement Division - Recognizes illicit discharges and trash at both residential and commercial building sites and responds to assessment and enforcement as necessary. **Code Enforcement,** part of the new Community Engagement Division is responsible for enforcement of primary codes with regulatory requirements.

Police - Respond to accidental illicit discharges (car accidents or other spills on or near public streets and public places). This department reports to the necessary assessment, enforcement and cleanup departments.

Fire - Respond to accidental illicit discharges (car accidents or other spills on or near public streets and places)

Summary of Measurable Goals

The measurable goals of the illicit discharges program will include:

- Track the number and document the type of calls received and the actions taken in response each year.
- Document an annual review of outfall maps to ensure they are up-to-date.
- Conduct and document monitoring at all of the significant outfalls over the course of the five-year permit period, and document illicit discharge detection actions taken as warranted.
- Track the number of illicit discharges that are encountered and document enforcement and elimination procedures that are conducted.
- Track the number of commercial/industrial uses assessed for possible illicit discharges and document resolution of illicit discharges identified.
- Complete an assessment of non-stormwater discharges along with implementing any additional local controls where identified as needed.

Minimum Control Measure #3:
5 Year Implementation Schedule

2015	2016	2017	2018	2019
Investigate new methods for developing a "hot line" and document calls received each year and improve the stormwater website as needed.	Implement program improvements as warranted. Includes the Stormwater Website	Monitor and revise as necessary. Update the Stormwater Website with new material.	Monitor and revise as necessary. Update the Stormwater Website with new material.	Monitor and revise as necessary. Update the Stormwater Website with new material.
Develop protocols for responding to complaints and maintaining complaint data base.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance Chapter 107.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance Chapter 107.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance Chapter 107.	Monitor and revise as necessary. Enforcement will be handled as per City Ordinance Chapter 107.

Conduct dry inspections of existing outfalls, covering 20% of the total number. Identify and inspect new outfalls as they are constructed or found. Add new inlets & outfalls to previously developed maps.	Conduct dry inspections of existing outfalls, covering an additional 20% each year until all are inspected by the end of the permit. Identify and inspect new outfalls as they are constructed or found.	Conduct dry inspections of existing outfalls, covering an additional 20% each year until all are inspected by the end of the permit. Identify and inspect new outfalls as they are constructed or found	Conduct dry inspections of existing outfalls, covering an additional 20% each year until all are inspected by the end of the permit. Identify and inspect new outfalls as they are constructed or found	Conduct dry inspections of existing outfalls, covering an additional 20% each year until all are inspected by the end of the permit. Identify and inspect new outfalls as they are constructed or found
Continue ongoing program with water samples of suspect sources. (USGS)	Continue ongoing program and revisions.	Continue ongoing program and revisions.	Continue ongoing program and revisions.	Continue ongoing program and revisions.
Implement new protocols for finding and responding to **illicit discharges.** Maintain a data base of discharge locations reported.	Review protocols, reports, etc. to improve the reporting and detecting processes.	Review protocols, reports, etc. to improve the reporting and detecting processes.	Review protocols, reports, etc. to improve the reporting and detecting processes.	Review protocols, reports, etc. to improve the reporting and detecting processes.
Create & implement Non-Stormwater Discharge Assessment program	Monitor and revise as necessary	Monitor and revise as necessary	Monitor and revise as necessary	Monitor and revise as necessary

D. Minimum Control Measure #4:

Construction Site Stormwater Runoff Control

Permit Requirements: The permittee must develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the permittee's small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the permittee's program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. For stormwater discharges associated with small construction activity in accordance with 40 CFR §122.26(b) (15) (i), the permittee will develop, implement, and enforce a program to reduce pollutant discharges from such sites. The permittee's program must include the development and implementation of, at a minimum:

1. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law;

2. Requirements for construction site operators to implement appropriate erosion and sediment control Best Management Practices;

3. Requirements for construction site operators to prevent or control waste that may cause adverse impacts to water quality such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site;

4. Procedures for site plan review and land division that incorporate measures to prevent or control potential water quality impacts;

5. Procedures for receipt and consideration of information submitted by the public; and

6. Procedures for site inspection and enforcement of control measures.

Applicable City of Springdale BMPs

Construction Site Waste (CSW):

CSW1 - *Erosion and Sediment Control Regulations*

Measureable Goals:

– Separately document changes made to all stormwater regulation Ordinances to improve construction site requirements.

CSW2 - *City Staff Pollution Prevention Team Training*

Continue working towards improving training team programs for more effectiveness.

CSW3 - *Land Drainage Program (Drainage Criteria Manual)*

The Engineering Staff will continue upgrading the Drainage Criteria Manual as required.

CSW4 - *Inspections and Enforcement*

Document the enforcement requirements at construction sites.

Rationale

The City has elected to continue usage of the above BMPs to address each component of the construction site runoff control requirements. ***BMP CSW1*** regulatory authority for implementation and enforcement of the City's erosion and sediment control program is provided in four ordinances, the Stormwater Ordinance (Chapter 107), the Drainage Criteria Manual (Chapter 106), Landscaping (Chapter 56) as well as the Nuisance Prohibitions (Chapter 110). ***CSW1*** was selected to improve linkage and cross reference between the Ordinances and create better detail to ensure new development and re-development sites have stormwater issues covered. A large portion of construction within the City are large scale developments and new residential housing sites, most ranging in size from <1.5 acres to >¼ acre with infrequent developments >1.5 acres. These sites are believed to have the potential to produce large amounts of pollution if not well regulated and enforced. These Codes then will provide a framework for oversight of construction that requires erosion and sediment control measures during construction of new development or redevelopment of sites of practically any size. Additionally the City requires a Grading Permit for sites < 1 acre. This permit is essentially the same as the large site permit and creates documentation of new housing sites and provides an avenue for preconstruction meetings and addresses site reviews.

BMP CSW2 provides for training of intercity City staff to recognize and correct erosion problems on construction sites and to enforce the provisions of the City's adopted ordinances. The implementation of the City's MS4 plan will extend throughout the City organization by implementing a Stormwater Pollution Prevention Team with representatives from Planning, Public Works, Parks and Recreation, Building Permit and Inspection, Code Enforcement, Fire Department and Police. Each Department's task would be recognizing stormwater issues of the City, whether passing by construction sites or other pollution events that is stormwater related that previously went unnoted. This is a critical component of the stormwater management program, and this is being addressed through the development of specific, dedicated staff for permitting, inspections, enforcement and the implementation of the City Pollution Prevention Team. The City's stormwater management program is the responsibility of the Engineering Department. However, Public Education and Involvement would be encouraged with each department within their crew members, families and neighbors. Fliers, bulletins, and various stormwater media can be made available at the Library and Museum as well as message boards for comments from the general public. This program is in the development stage to be on going, and is intended to fulfill Requirement 6. Measurement of this goal will be difficult however it is believed that in later years the BMP will pay benefits.

BMP CSW3 provides for specific requirements for construction site developers and are addressed in the City's Engineering Drainage Criteria Manual and Stormwater Best Management Practices Manual, During the Site Plan Review, Technical Plat Review and SWPPP review processes, all check lists and specific items have been finalized on the construction documents for all new developments of Subdivisions, Large Scale Developments, and Non Large Scale Developments to ensure drainage criteria and pollution prevention has been accurately planned. The SWPPP review process follows all guidelines developed by the ADEQ and EPA and are reviewed by a CPESC reviewer. A SWPPP guideline and check list is in the Best Management Practices Manual Appendix. ***BMP CSW4*** provides for the construction site review monitoring frequency based on the site sensitivity such as location to streams, drainage to neighboring properties, size of the site and contractor construction methods and behavior. Drive-by/drive through inspections looks for flagrant violations and are performed one or more times per week and resolved as necessary. More thorough

inspections are documented once per month. The Stormwater Ordinance Chapter 107 requires the development of erosion and sediment control plans and the BMP Manual provides minimum requirements. The Stormwater Ordinance and BMP Manual have been reviewed and are updated to include issues provided by the new ARR 40000 as well as adopting usage of new technology. Additionally, the nuisance prohibitions section of the Code of Ordinances Chapter 110 provides authority to regulate street cleanliness to prevent or control wastes that can adversely impact water quality. Taken together, these adopted Codes and programs fulfill Requirements 1 through 4 described above. Enforcement is carried out by the Engineering Department Inspectors and during certain circumstances can be handled by Code Enforcement as the Ordinances requires.

Public complaints of construction sites involving mud tracking, liter and construction materials are covered by public knowledge of phone numbers of City Hall and Police Dispatch. The Stormwater Website has a section to file a complaint and send to the Engineering Department. Complaints phoned in regarding a construction site incident are forwarded to the Engineering/Planning Departments and the particular construction site situation is investigated and handled usually within an hour or two.

Responsible Parties

The City's Engineering and Planning Departments maintains the City Code of Ordinances related to construction and coordinates the Site Plan and Drainage Review process. The Engineering Department staff is responsible for implementation and inspection of approved land alteration and development projects for overall development criteria as well as erosion and sediment control and construction site runoff controls. Building Inspection and Permits Department will aid in monitoring control of new housing sites. Enforcement of these areas of the City's Codes is conducted in coordination with the Office of the City Attorney if necessary.

- Engineering (Coordinate Management and Implementation and provide site inspections)
- Building Permitting and Inspection (provide site inspections for residential housing sites)
- Code Enforcement (provide inspections for all ordinances - mud tracking, trash, clippings etc.)

Summary of Measurable Goals

Staff will review the Municipal Code and Development Code provisions related to erosion control and construction site runoff during the permit period and revise as necessary. The measurement of success of the program will be based on monitoring of compliance and avoidance of impacts to water quality from land alteration and construction. The effects of land alteration and construction will be minimized with well positioned field temporary BMPs, systematic monitoring and maintenance and continued education of site construction personnel as well as City employees.

Minimum Control Measure #4:
5 Year Implementation Schedule

<table>
<tr><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td>Review existing Municipal Code and Development Code for erosion and construction site runoff control effectiveness.</td><td>Review, modify and enforce provisions as necessary.</td><td>Review, modify and enforce provisions as necessary.</td><td>Review, modify and enforce provisions as necessary.</td><td>Review, modify and enforce provisions as necessary.</td></tr>
<tr><td colspan="2">Conduct staff training on an ongoing basis; update as needed.</td><td colspan="3">Evaluate the effectiveness of the training and update/improve as warranted.</td></tr>
<tr><td>Review the land drainage and alteration program on an ongoing basis.</td><td>Conduct land drainage and alteration program training as-needed.</td><td>Track land drainage and alteration compliance and impacts to water quality on an annual basis.</td><td>Evaluate Municipal Code and develop amendments as needed to achieve compliance with CWA and ESA.</td><td>Program review and assessment.</td></tr>
<tr><td>Conduct inspections on an ongoing basis</td><td>Implement existing Code authority on an ongoing basis</td><td>Implement existing Code authority on an ongoing basis</td><td>Review and amend the Code as appropriate</td><td>Review and amend the Code as appropriate.</td></tr>
</table>

E. Minimum Control Measure #5:

Post-Construction Stormwater Management for New Development and Redevelopment

Permit Requirements: The permittee must:

Develop, implement, and enforce a program to ensure reduction of pollutants in storm water runoff to the maximum extent practicable (MEP) from new development and redevelopment projects that disturb one acre or more, or less than one acre if they are part of a larger common plan of development or sale, and discharge into the permittee's small MS4. The permittee's program must ensure that controls are in place that would prevent or minimize water quality impacts.

Develop and implement strategies that include a combination of structural or non-structural BMPs appropriate for the permittee's community.

Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law.

Ensure adequate long-term operation and maintenance of BMPs; and ensure adequate enforcement of ordinance or alternative regulatory program.

Applicable City of Springdale BMPs

Development Standards **(DS):**

DS1 - *City Code of Ordinances, Engineering Drainage Criteria Manual and BMP Manual*

DS2 - *Post Construction Stormwater System Maintenance Inspections and Compliance*

DS3 - *Stormwater Facilities Mapping Plan (SFMP) and Capital Improvement Program (CIP*)

DS4 - *Low Impact Development (LID)*

Rationale

The City has elected to continue usage of the above BMPs to meet the post-construction Minimum Control Measure requirements. The City Code of Ordinances, Chapter 56 Landscape and Buffers, Chapter 106 Drainage Criteria Manual, Chapter 107 Stormwater Pollution Prevention Plan, BMP Manual and Chapter 112 Subdivisions requires that new developments in the post construction phase to incorporate stormwater management BMPs to reduce the impacts associated with stormwater runoff generated at the site. ***BMP DS1*** provides for maintenance and revisions of the selected Code of Ordinances requirements and the more specific design requirements included in the Engineering Drainage Criteria Manual and BMP Manual, such that pollutants from stormwater runoff from new development are reduced to the maximum extent practicable, in partial compliance with the requirements of this Minimum Control Measure. Additionally ***BMP DS1*** was selected to improve linkage and cross reference between the Ordinances and create better detail to ensure all areas disturbed by construction or other means have been properly stabilized. ***BMP DS2*** provides for the development of a long-term inspection and enforcement program, which is still needed to fulfill all the requirements noted above. Even though there are ordinances in place,

it is recognized that additional detail to ordinance linkage is still required to be amended in the ordinances to ensure proper inspection and enforcement is in place and compliance is at the MEP. This will be case by case review after post construction to determine if the compliance requirement is adequately detailed within the Ordinances. This will be a continued ongoing process during the permit period. ***BMP DS3*** was selected to address opportunities for implementing water quality improvement projects associated with retrofits to and expansion of the public stormwater drainage system. The public stormwater drainage system has been mapped and is referred to as the *Stormwater Facilities Mapping Plan (SFMP).* Opportunities for implementing water quality improvement projects includes continued development and re-development, street widening projects with curb and gutter and storm sewer installation or replacement, stormwater retention, and provides improvements to pre-existing and post development methods. The City has approximately 62 detention - retention ponds in place based on runoff criteria that is required by the Drainage Criteria Manual. Several recent pond bottoms have been engineered to include thick layers of amended soil to help advance infiltration. The City maintains or monitors them and will add more as development continues. These function as flood control measures as well as stormwater pollution traps to some degree. This BMP will support fulfillment of requirements 1 and 2 by providing publicly-funded and managed water quality improvement infrastructure to supplement reduction of pollutants associated with increased stormwater runoff from a growing urban environment. ***BMP DS4*** was selected to address opportunities for implementing water quality improvement projects associated with Low Impact Development. This BMP will require the development of a long-term outreach to homeowners, neighborhood POAs, developers and Engineering Design groups.

Responsible Parties

- Engineering (Coordinate Management and Implementation)
- Public Works
- Building Permitting and Inspection

Summary of Measurable Goals

The regulatory framework for control of post-construction stormwater runoff is contained in the City's Code of Ordinances, Chapter 56 Landscape and Buffers, Chapter 106 Drainage Criteria Manual, Chapter 107 Stormwater Pollution Prevention Plan, BMP Manual, Chapter 110 Nuisance Prohibitions and Chapter 112 Subdivisions. This framework will seek out refinements and expanded as needed to improve the City's capability to achieve reductions in stormwater pollution from new developments through periodic evaluations and updates to the Codes. Measurable goals will include to:

1. Monitor Technical Plat Review and Land Division approvals for adequacy of stormwater quality management to ensure that compliance for post construction is being met even though the regulatory mechanism is in place. Review all new stormwater drainage infrastructures on new developments for incorporation of stormwater quality improvement facilities in place at the final inspection. Disapprove projects until these projects have met all the requirements. The decreasing number of project disapprovals during the year would partially reflect measures of success.

2. Monitor Stormwater Pollution Plans for adequacy of stormwater quality management; monitor all inspection practices and provide additional training as needed to the City departments. Continue

an annual review/survey of new development to ascertain what was constructed in year one is functioning properly without evidence of pollution criteria exists in year 2 and beyond.

3. Monitor compliance achieved in public and private maintenance of stormwater management systems required in the development approval process. This will include utilizing USGS under contract to sample Spring Creek flows with continuous monitors in two areas of the City. Brush Creek and Clear Creek within the City limits are dry creeks between rains and are monitored during high flows infrequently.

4. Continue to Include efforts to identify and remove impediments for LID. Include recommendations for LID at Technical Plat Review and Land Division approvals with cost comparisons between traditional development and LID. LID is currently being demonstrated in small projects by the U of A and Habitat for Humanity organizations in NWA although much smaller projects in Springdale. A relatively large impediment for NWA is the extremely tight clay and rock sub soil (.05"/ hr. infiltration rate) making rain gardens and bio-swales more expensive and less effective than soils with higher to much higher infiltration rates.

Summary of Development/Implementation Schedule

BMP#	PERMIT YEAR				
	2015	**2016**	**2017**	**2018**	**2019**
DS1	Continue reviewing Codes and propose amendments as appropriate. Seek City Council approval & adoption of amendments. Review Engineering Drainage Criteria Standards and BMP Manual and amend as needed to reflect Best Management Practices.	Continue enforcing existing Codes/ Drainage Manual and monitor/analyze effectiveness at achieving BMPs that comply with pollutant reduction MEP requirement and update as needed.	Continue enforcing existing Codes/ Drainage Manual and monitor/analyze effectiveness at achieving BMPs that comply with pollutant reduction MEP requirement and update as needed.	Continue enforcing existing Codes/ Drainage Manual and monitor/analyze effectiveness at achieving BMPs that comply with pollutant reduction MEP requirement and update as needed.	Continue enforcing existing Codes/ Drainage Manual and monitor/analyze effectiveness at achieving BMPs that comply with pollutant reduction MEP requirement and update as needed.

DS2	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time.	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time.	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time.	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time.	Maintain inspection and compliance activities and monitor/analyze program effectiveness and success/failure of BMPs observed over time.
DS3	Continue SFMP and adopt updated requirements for pollution control and detention of stormwater from new development and re-development projects		Implement SFMP through annual CIP projects and other construction processes to achieve stormwater detention and pollution control methods.		
DS4	Continue reviewing for LID impediments	Review for LID impediments	Review for LID impediments	Include efforts to identify and remove impediments for LID on report	Monitor and revise as necessary

F. Minimum Control Measure #6:

Pollution Prevention in Municipal Operations

Permit Requirements: The permittee must:

Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations; and

Using training materials that are available from the ADEQ, EPA, or other organizations, the permittee's program must include employee training to prevent and reduce stormwater pollution from activities including, but not limited to, park and open space maintenance, fleet and building maintenance, new municipal facility construction and related land disturbances, design and construction of street and storm drain systems, and stormwater system maintenance.

Municipal Operations Facilities of the City

The following facilities are owned and operated by the City. These facilities conduct activities described in 40CFR122.26 (b) (14) and are not required to obtain an Industrial Stormwater General Permit.

Public Works:

- Primary facility -Randall Wobbe Lane
- Airport

Parks and Recreation:

- Hunt Park Maintenance Facility
- Tyson Park Maintenance Facility
- Murphy Park and Swimming Pool
- Bobby Hopper Park
- Bayyari Park
- Shiloh Square and the trails system

Fire Stations

- Holcomb Street Main Facility
- Station 1
- Station 2
- Station 3
- Station 4
- Station 5
- Station 6

Police Station and Police Vehicle Maintenance Facility

The City sanitary sewer treatment facility and the City sanitary sewer maintenance facility (SWU) is a separate entity from the City facilities listed above, has their own chain of command, Board of Directors, revenue source and not part of this SWMP.

Applicable City of Springdale BMPs

Operation and Maintenance **(OM)**:

OM1 - *Operation and maintenance program that includes a training component*

OM2 - *Training Program*

OM3 - *Pollution Prevention Plan Manuals for City Operations (PPP)*

OM4 - *Stormwater Quality Technology Pilot Program*

OM5 - *Channel Assessment*

OM6 - *Street Sweeping for Stormwater Pollution Control*

Rationale

The City has elected to continue usage of the above six BMPs to address Minimum Control Measure #6 - Pollution Prevention in Municipal Operations. ***BMP OM1*** and ***BMP OM2*** provides a training goal to both train the departments as a group with visual aids and also in their respective crew assignments to tie a stormwater component to their everyday work. As part of the contract with Northwest Arkansas Regional Planning and the University of Arkansas Cooperative Extension Service, Cooperative Extension service employees will provide training at least once a year to MS4s. The training will use materials provided by ExCal Visuals and others that include information on construction sites, parks & open space maintenance, and fleet & building maintenance. Jurisdictional-specific ordinances, policies, and mandates will also be addressed during these trainings and specific system maintenance as departmentally appropriate. Training will stress how the employees are the "eyes and ears" of the city and that they should learn to recognize signs of illicit discharge and how to properly report these instances. Recommendations from the various NWA City Coordinators are also addressed during the regional stormwater compliance committee' monthly meetings and these recommendations help to shape the educational outreach messages.

BMP OM3 includes

1. Revise and improve Pollution Prevention Plan Manual as necessary for routine maintenance activities and added facilities associated with Public Works and Parks and Recreation.
2. Continue scheduled evaluations of City practices, such as those associated with Fire and Police, and develop PPP manuals or procedures as appropriate.

A City PPP Manual for routine maintenance activities has been developed with the intent to meet requirements 1 and 2 above, along with any other regulatory programs. Site specific stormwater quality management practices will be included in the PPP. It is expected that the Police and Fire and Life Safety Departments will have the remaining operational activities, such as vehicle washing and incident clean-up, warranting this evaluation and will also be included in BMP OM3. This will be a working manual and the initial training is provided to the staff and the practices will be tested in the field and revised as necessary through the permit period. Any revisions that are necessary will be made by the Department staff and employees in collaboration with the Stormwater Coordinator for full implementation. Any ongoing and additional training will be provided by the U of A. Extension Service.

BMP OM4 includes efforts for continued pilot testing of stormwater quality technologies that meet pollution reduction objectives. Budgetary limitations primarily prevented this from happening during the past permit period. Install various types of devices in City-owned catch basins intended to remove floatables and in later years proceed to design to filter pollutants from urban runoff major multi-lane streets. The effectiveness and maintenance requirements of these devices will be evaluated for ease of use, effectiveness, cost, and longevity. Ultimately, the best-suited equipment will be identified and used extensively (within budgetary limitations) by the City to intercept debris and other pollutants from the stormwater drainage system. ***BMP OM5*** provides a continued assessment of open channel conditions to support stormwater management planning efforts. This effort will be in conjunction with stormwater sewer

map, dry weather screening activities and data base. This assessment will assist the City in prioritizing capital improvements and maintenance activities that improve open channel stormwater quality functions throughout the city. Each of the BMPs aims to prevent or reduce pollutants contained in urban stormwater runoff from the City stormwater system and municipal operations. The channel assessment for all surface waterways inside the city limits would gather the following information citywide:

- Erosion-prone areas
- Stream bed material
- Reach profile
- Presence of invasive plant species (in-stream and riparian zone)
- Presence of native plants for seed stock
- In-stream structures or constrictions
- General land use by reach

BMP OM6 addresses street sweeping as a pollution control practice, and includes an assessment and evaluation of existing practices and implementing improved practices as appropriate. Street sweeping is a program which has been provided by the City for many years. While this program originated out of the desire to maintain streets for aesthetic and safety purposes, it now is also recognized as an avenue to remove debris and pollution from entering the stormwater drainage system. One mechanized sweeper service has established routes throughout the city with multiple sweeps per year. This practice collects trash, leaves, dirt, and other contaminants from roadsides and gutters, which otherwise flows into the stormwater drainage system, carrying contaminants and toxins. These contaminants include sediment, petroleum, organic and inorganic wastes, and toxic metals from paint, tires, and brake dust. Sweepers are also used to respond to certain types of spill clean-up work at accident or roadway spill scenes, where the material is able to be safely swept up with this type of equipment. Quantities and disposal of street sweeping collections will be itemized in the Pollution Prevention Manual.

Responsible Departments

- Engineering (Coordinate Management and Implementation of the design)
- Public Works
- Parks and Recreation
- Police
- Fire
- University of Arkansas Cooperative Extension

Summary of Measurable Goals

The City finished a review and update of Public Works and Parks and Recreation maintenance practices, and has resulted in a revised PPP Manual for routine maintenance practices. Implementation, including training of the new PPP Manual, began in 2010. Revising of the Manual was completed in 2014. Specific activities in the manual for each site will be tracked to evaluate their effectiveness at minimizing negative impacts on stormwater quality. The evaluation of other City operations and development of appropriate PPP manuals will be developed and implemented as needed in years 3 and 4 of the permit period. Updates to the PPP will be completed as necessary during the permit period. The Channel Assessment, primarily stream bank

erosion, will be developed and implemented in years 4 and 5 of the permit period however new drainage data will be collected and maintained on a regular basis through the permit period. The street sweeping evaluation will occur in years 2 and 3 of the permit period with review evaluation of sweeping methods, collection quantities and evaluation of collection samples for sediment, petroleum, organic and inorganic wastes, and toxic metals from paint, tires, and brake dust. The City will continue to review and update the PPP Manual for routine maintenance activities from all facilities as necessary. The review will focus on feedback from staff and employees as to what is working and is not working.

Summary of Development/Implementation Schedule

<table>
<tr><th rowspan="2">BMP#</th><th colspan="5">PERMIT YEAR</th></tr>
<tr><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td>OM1</td><td>Continue utilizing new training devices and DVD’s to stay consistent with industry standards</td><td>Review and update materials</td><td>Review and update materials</td><td>Review and update materials</td><td>Review and update materials</td></tr>
<tr><td>OM2</td><td>Conduct annual training for employees. Train new hires and contract employees</td><td>Conduct annual training for employees. Train new hires and contract employees</td><td>Conduct annual training for employees. Train new hires and contract employees</td><td>Conduct annual training for employees. Train new hires and contract employees</td><td>Conduct annual training for employees. Train new hires and contract employees</td></tr>
<tr><td rowspan="2">OM3</td><td colspan="5">Revise the PPP Manual for routine maintenance activities, new facilities and new equipment at all operation facilities needing them.</td></tr>
<tr><td>Conduct training as appropriate.</td><td>Review and revise manual as appropriate.</td><td>Conduct training as appropriate.</td><td>Review and revise manual as needed.</td><td>Conduct training as appropriate.</td></tr>
</table>

	Initiate review of other City activities. (Fire & Police)	Maintain Pollution Control guidance for all City departments.	Implement Pollution Control Guidance and maintain as departments expand.		
OM4	Review various types of curb inlets used within the City and technology in place to fit them.	Conduct pilot testing of stormwater quality technologies on an ongoing basis. Curb inlet filters of various types.	Conduct pilot testing of stormwater quality technologies on an ongoing basis. Curb inlet filters of various types.	Analyze initial costs, maintenance costs and feasibility of Citywide usage.	Analyze and prioritize areas of the City most sensitive to streams and water bodies.
OM5	Continue investigating drainage complaints and record evaluation of the site. Coordinate with Control Measure #3 - IDDE3, to gather drainage criteria to develop the storm sewer map and data base. (*Stormwater Facilities Mapping Plan (SFMP)* Data base will provide an engineering basis for determining problem areas for improvements required.		Complete gathering drainage criteria to develop the storm sewer map and data base. Begin engineering assessments to determine effective costs and budget restraints at that time.		Continue engineering assessments to determine effective costs and budget restraints at that time.
OM6	Maintain street sweeping program.	Assess and evaluate street sweeping program; evaluate new sweeper designs recommend changes, improvements, and purchases as appropriate.		Implement and evaluate changes.	

Appendix I

1. Flood Control Projects and Structural Controls Program

When needed, the City will clean out and take care of minor maintenance of the waterways located within the city limits. If there is major erosion or major maintenance required, the City will use private contractors to perform the required work.

Today, the City maintains approximately 62 detention ponds within the city limits. Ownership of stormwater detention ponds in residential subdivisions accepted by the City shall be vested in the City within 30 days after filing the final plat. The Developer must warrant the operation of the drainage system for a 1-year period after the acceptance by the City by an acceptable Maintenance Bond or equal provided by the Developer's Contractor or the Developer. The bond shall be required to be extended until 1 year after all phases of the subdivision that substantially drain into the basin are completed.

Ownership of stormwater detention ponds in commercial, industrial, and non-residential areas not accepted by the City shall be vested in the property owner.

No alteration of the drainage system will be allowed without the approval of the City Staff. If construction of the basin is not complete, a cash bond from an acceptable financial institution shall be posted in addition to the Performance/Payment bond.

Easements shall be provided in the Plans for detention facilities if the basin is not to be deeded to the City.

A minimum of a 20' wide drainage easement shall be provided around the 100-year flood pool, connecting the tributary pipes and the discharge along the most passable routing of piping system.

Detention facilities, when required, are to be built in conjunction with storm sewer installation and/or grading. Since these facilities are intended to control increased runoff, they must be partially or fully operational soon after the clearing of vegetation. Silt and debris connected with early construction shall be removed periodically from the detention area and control structure to maintain the facility's storage capacity.

Maintenance of detention facilities is divided into two components. The first is long-term maintenance that involves removal of sediment from the basin and outlet control structure. Maintenance to an outlet structure is likely minimal due to the initial design of permanent concrete or pipe structures. Studies indicate that in developing areas, basin cleaning by front-end loader or grader is estimated to be needed once every 5 to 20 years. In residential subdivisions where the City has accepted the detention basin, the City is responsible for long-term maintenance. The residential developer and all non-residential property owners are responsible for long-term maintenance in basins not accepted by the City.

Short-term maintenance or annual maintenance is the second component and is the responsibility of the Developer or association for 2 years after acceptance of the final plat or filing of the last subdivision phase that substantially adds stormwater to a detention basin. The items considered short-term maintenance are as follows:

1. Minor dirt and mud removal.
2. Outlet cleaning
3. Mowing
4. Herbicide spraying (in strict conformance with state and federal law)
5. Liter control.

The responsibility of maintenance of the detention facilities and single-lot development projects shall remain with the general contractor until final inspection of the development is performed and approved, and a legal occupancy permit is issued. After legal occupancy of the project, the maintenance of detention facilities shall be vested with the owner of the detention pond.

The City reviews all plans for the development of retention/detention ponds for compliance with the City Drainage Criteria Manual.

The City will continue to evaluate, prioritize, and install structural controls on developed areas or retrofitting of existing structures. These structures shall be operated in a manner to reduce the discharge of pollutants to the maximum extent possible (MEP).

2. Construction Site Runoff Program

The City requires that a Pre-Construction Conference be held with the City prior to the start of all land disturbing activities for the construction of new utilities, industrial, commercial or institutional facilities, multi-family residential units and residential subdivisions. In order to schedule a Pre-Construction conference, several documents must be provided:

- *Erosion Control Site Plan:* Drawings (SWPPP) and narrative identifying the placement of all planned BMPs with installation instructions & details.
- *Permit Authorization from ADEQ:* If the area of land to be disturbed is 5 acres or greater, a letter issuing coverage under the ADEQ's General Construction Permit.
- *Small Site Construction Notice:* If the area of land to be disturbed is less than 5 acres, an ADEQ automatic coverage form stating the amount of disturbed area and person responsible for erosion control during construction.
- *City Grading Permit authorization:* If the area of land to be disturbed is 1 acre or greater. A small site grading permit if the area of land to be disturbed is less than 1 acre and greater than 1.2 acre.
- *Staff Approval of Construction and SWPPP Plans*

During the construction phase of a project, the City Stormwater Inspector will have access to the site and its records and a "maintenance and inspection" report will be completed and discussed with the owner/operator or designer. Upon the next inspection, if deficiencies have not been corrected, a Notice of Violation (NOV) will be issued to the owner/operator. If a site remains deficient the Storm Water Inspector will continue enforcement procedures outlined in the City's Stormwater Pollution Prevention, Grading, and Erosion Control Ordinance Chapter 107.

The City's ordinances will be reviewed for "gray zones" and modified as needed. Notifications to contractors/developers of their potential responsibilities under the ADEQ permitting program, for construction site runoff, will be done by the City during the review process.

Municipal Construction Permits

The City is the "owner" of any City project. The contractor will have "daily operational control" of each project and therefore manage the installation and maintenance of erosion controls. The City's Stormwater Inspector will regularly inspect each project until completion. Exceptions to the above include large infrastructure projects engineered by a local consultant and include daily contract Project Management and Stormwater inspection.

3. Springdale Solid Waste

The City contracts Waste Management for recycling. Typical items accepted include aluminum cans, office paper, most types of plastics and plastic bottles, newspaper, corrugated cardboard, and grass clippings. Other forms of waste that will need to be disposed of can be dropped off at Springdale Public Works, 269 E Randall Wobbe Rd. for items such as used motor oil, plastic bottles, glass, and paper recycling and bulky waste products. These items are hauled to Boston Mountain that monitors for compliance with solid waste regulations of Arkansas. Springdale is in the Boston Mountain Solid Waste District (BMSWD) area of the

state. Together the District, Cities and County work together to address solid waste issues throughout Washington and Benton Counties. Listed below are facilities and phone numbers and location for different items accepted by the Solid Waste District. Boston Mountain also works with local solid waste haulers to license and monitor for compliance with solid waste regulations of Arkansas.

. **Other Recycling Drop-Off and Drive Locations**

- Bentonville Composting Facility, 2000 NW "A" Street. Phone (479) 271-5954
- Hazardous Materials - HazMERT - (479) 621-9707
- Marck Recycling - 3507 N Arkansas. Phone (479) 878-1384
- Roll Off Service - (479) 872-9098
- Boston Mountain Solid Waste District, 11398 Bond Road, Phone (479) 846-3005
- Waste Management. Recycle Drop-off, 104 N. Old Missouri Road, Phone (479) 361-1111

Household Hazardous Waste (HHW)

These items include automotive products, pool chemicals, paint products, lawn & garden products, cleaning products, batteries, thermometers, florescent bulbs, etc. Items can be recycled at a local HHW collection center at no charge for household quantities available to City residents. For more information on Household Hazardous Waste, please visit the EPA website or Water Environment Federation website.

- Washington County Household Hazardous Waste Drop-Off, 2615 Brink Drive, Monday- Friday 8am-4pm and the 1st Saturday of each month 8am-noon, (479) 444-1725
  www.co.washington.ar.us/EnvironmentalAffairs/special waste

Electronics

Washington County has an electronics recycling program in place to meet the growing demand for disposal. A small fee covers the cost of disposal. The following items are accepted at the Washington County Household Hazardous Waste Drop-Off. (479) 444-1725
www.co.washington.ar.us/EnvironmentalAffairs/special waste

- Computers- includes monitor, CPU, keyboard, speakers & mouse
- Handheld devices such as PDA's and iPods
- Media storage- CD's, DVD's, videotapes, floppy disks (free)
- TVs
- VCRs
- Printers
- Copiers
- Scanners
- Microwaves
- Home Stereos
- UPS's
- Cell Phones (free)

Inquiries of Other Special Waste Types

For information on disposing of special wastes such as TV's, printer cartridges, building materials, appliances, or tires please call Springdale Public Works (479) 750-8135.

4. Public Outreach/Public Involvement

Since 2003, the cities of Springdale, Fayetteville, Rogers, Bentonville, Bethel Heights, Elkins, Elm Springs, Farmington, Greenland, Johnson, Little Flock, and Lowell, and along with Benton and Washington Counties and the University of Arkansas have been operating under EPA's federally mandated Phase II Stormwater regulations as "small" municipal separate storm sewer systems (MS4s) that meet "urbanized area" criteria based on 2000 U.S. Census population data. After the 2010 U.S. Census population data was completed the urbanized areas Bella Vista, Cave Springs, Centerton, Elkins, Pea Ridge and Tonitown became part of the Phase II Stormwater regulations. While these jurisdictions obtained separate NPDES permits, they jointly contracted with the University of Arkansas Cooperative Extension Service (CES) through the NWA Regional Planning Commission as a successful and cost-effective means of implementing the following minimum control measures required in the Phase II permits:

An urban stormwater education steering committee (community members) and the MS4 Focus Team (municipality representatives) has been utilized to plan and assess regional urban stormwater outreach and education efforts. County Extension Agents in Benton and Washington Counties will continue to collaborate with CES Environmental and Natural Resource, Horticulture, Pest Management, and Public Policy state faculty on educational materials development, civic programs, construction workshops and municipal employee training. CES has produced professional press releases, radio PSAs, displays, brochures and fact sheets. They have also hired and trained local program Para-professionals to conduct school and outreach programs at fairs and community events. Measurable program accomplishments are tracked and reported through quarterly and annual reports presented to the NWA Regional Planning Commission, education steering committee, and MS4 focus group along with annual reports for each participating MS4 prior to the ADEQ annual reporting deadline.

Springdale takes an active interest in the benefits of Low Impact Development (LID) and during 2010 Springdale Public Works installed the first rain garden in the city. The rain garden is located within the Public Works front lawn and is downstream from a large portion of the Public Works machinery parking lot. The garden installation of amended soils is intended to remove pollutants washed from the parking lot as well as a display for public interest.

Also during 2013 Springdale began building the city link to the NWA trails system, reaching from Fayetteville to Bella Vista. The trail design includes a trail head at Shiloh Square as well as kiosks along the trail system that will have multiple outreach genres and methods to alert and inform public users of stormwater concerns about trash, floatables and pollution to be prevented from entering streams and water bodies.

5. Pesticides, Herbicide and Fertilizer Application Program

Before a pesticide can be sold in Arkansas, it must first be registered with the Plant Board in accordance with the Arkansas Pesticide Control Act and Regulations. This allows the Plant Board to confirm that the product meets all State and Federal requirements to provide for both human and environmental protection. Each year the Pesticide Division registers approximately 10,000 pesticides for use in the State.

Both "users" and "applicators" of restricted use pesticides must be trained in the proper handling of such pesticides and then licensed by the Plant Board in accordance with the Arkansas Pesticide Use and Application Act and Regulations. Those applicators that will apply pesticides commercially must also be tested before a license can be issued. Each year the Pesticide Division issues approximately 15,000 Private Applicator Licenses, 900 Commercial Applicator Licenses, 2000 Non-Commercial Applicator Licenses, 500 Commercial Firm Licenses (ground and air), and 250 Custom Applicator Licenses.

The division also takes its responsibility for taking enforcement action against those persons who fail to comply with the laws and regulations very seriously. Enforcement actions are taken in a fair and equitable fashion as outlined by the Division's Enforcement Response Regulations. Penalties can range from a

warning letter to a monetary assessment of up to $1000 and license revocation. Please visit the Arkansas plant board site www.plantboard.org.

6. Pollution Complaints and Spills Response Programs

Any pollution spills to the City streets and right-of-ways are handled by the City Fire Department or the Washington and Benton County Emergency Response. Citizen complaints concerning illicit discharges or polluted discharges are handled by the Engineering Department.

7. Illicit discharge Detection and Elimination Process

The City Illicit Discharge Detection and Elimination Program is setup to locate and eliminate illicit discharges and improper disposals into the MS4. This program shall include dry weather screening activities to locate portions of the MS4 with suspected illicit discharges and improper disposal. Follow-up activities to eliminate illicit discharges and improper disposal may be prioritized on the basis of magnitude and nature of the suspected discharge; sensitivity of the receiving water; and/or other relevant factors. This program establishes priorities and schedules for screening the entire MS4 at least once during the permit term. The City's Illicit Discharge Ordinance which is part of Chapter 107 Stormwater Ordinance shall require the elimination of illicit discharges and improper disposal practices as expeditiously as reasonably possible.

Illicit Discharges and Improper Disposal

Non-storm water discharge to the MS4 shall be effectively prohibited. The following non-stormwater discharges are deemed acceptable and not a violation:

1. A discharge authorized by an NPDES permit other than the NPDES permit for discharges from the MS4;
2. Uncontaminated waterline flushing and other infrequent discharges from potable water sources;
3. Infrequent uncontaminated discharge from landscape irrigation or lawn watering;
4. Discharge from the occasional non-commercial washing of vehicles on properties zoned A-1, R-E, SF-1, SF-2, SF-3, SF-4, MF-2, MF-4, MF-12, MF-16, MF-24, or PUD, or the non-commercial washing of vehicles by charitable organizations.
5. Uncontaminated discharge from foundation, footing or crawl space drains, sump pumps and air conditioning condensation drains;
6. Uncontaminated groundwater, including rising groundwater, groundwater infiltration into storm drains, pumped groundwater and springs;
7. Diverted stream flows and natural riparian habitat or wetland flows;
8. A discharge or flow of fire protection water that does not contain oil or hazardous substances or materials.

8. Supporting Permit Departments

Engineering Department

This Department places a high priority on implementing new and innovative environmental friendly development techniques to protect sensitive public and private water supplies. This Department's responsibility is to ensure that any development that occurs within the City Limits is in the best interest of its citizens, and that the City will continue to grow in a manner that provides the best quality of life for the citizens.

Mayor and City Council

The Mayor and City Council approve ordinances, changes to ordinances, contracts, fees and annual budgets.

Public Works Department

This Department works to sweep and maintain the streets, clean and maintain roadside ditches, monitor and maintain retention ponds, mow and maintain major highway intersection right-of-ways including landscaped areas and maintain curb inlets and junction boxes.

Fire Department

Spill prevention and response is a requirement in the City's MS4 permit ARR040019. The City Fire Department works to prevent, contain and respond to spills that have a potential to pollute the City's MS4. The spill response program includes a combination of spill response by each MS4 and legal requirements for private entities within the MS4 municipal jurisdiction.

Parks Department

Parks employees maintain all City park facilities including landscaped areas where pesticides, herbicides, and fertilizer are used.

Water and Sewer Department

Line Maintenance staff work to eliminate sanitary sewer and water line breaks and overflows and make repairs.

Legal Authority and SWMP Resources

City of Springdale Municipal Code and City Attorney's Office

Subdivision Regulations

The Subdivision Regulations govern private and public development plans. They contain the Storm Water Management Regulations, Storm Water Pollution and Prevention and Erosion Control Standards, and Subdivision Design Standards. They contain the fees required to submit any

Springdale

MEMORANDUM OF UNDERSTANDING FOR THE MS4 JURISDICTIONS OF NORTHWEST ARKANSAS AND THE NORTHWEST ARKANSAS REGIONAL PLANNING COMMISSION

WHEREAS, eighteen cities in Benton and Washington Counties, the counties themselves, and the University of Arkansas meet the U.S. Environmental Protection Agency's "small" urbanized area municipal separate storm sewer (MS4) criteria, and must comply with national Phase II Stormwater Regulations; and

WHEREAS, the Arkansas Department of Environmental Quality (ADEQ), the state agency authorized by EPA to issue National Pollutant Discharge Elimination System (NPDES) permits requiring and ensuring compliance, will establish dates for affected entities to be covered under Arkansas' general permit for MS4s; and

WHEREAS, said permit requires development, implementation, and evaluation of a stormwater management plan, that addresses each of the six minimum control measures identified in the Phase II Storm Water Regulations contained in 40 CFR 122.26 and outlined in Part I.B.; and

WHEREAS, the Northwest Arkansas Regional Planning Commission (NWARPC) has coordinated meetings between representatives of affected jurisdictions in an effort to determine, in the interest of economy and efficiency, whether certain stormwater permit components could be addressed collectively, rather than individually; and

WHEREAS, it has been determined that a cost effective, regional approach to certain minimum control measures required as part of the permit – namely Public Education and Outreach, Public Involvement and Participation, and the education component of Pollution Prevention/Good Housekeeping – is both logical and appropriate; and

WHEREAS, the NWARPC previously requested and received statements of qualifications from interested institutions and firms with demonstrated water quality educational expertise, and has, in cooperation with representatives of affected MS4 jurisdictions, endorsed the attached proposal from the University of Arkansas Cooperative Extension Service; and

WHEREAS, the ADEQ has endorsed the regional concept and proposal for addressing said minimum control measures; and

WHEREAS, said representatives of affected MS4s have also endorsed the distribution of costs associated with the proposal as shown on the attached cost allocation plan; and

Springdale

WHEREAS, the Board of Directors of the NWARPC have authorized the Commission to act as the financial clearinghouse and primary contractor, on behalf of said MS4s, in connection with said proposal.

NOW, THEREFORE BE IT RESOLVED THAT WE, THE UNDERSIGNED MS4 JURISDICTION, AND THE BOARD OF DIRECTORS OF THE NORTHWEST ARKANSAS REGIONAL PLANNING COMMISSION, AGREE AS FOLLOWS:

SECTION 1. To participate in a 1-Year Regional Stormwater Education and Coordination Program (January 1, 2014 – December 31, 2014), to be carried out by the University of Arkansas Cooperative Extension Service through an engagement with the Northwest Arkansas Regional Planning Commission, with costs based on each jurisdiction's pro-rated share of region's 2010 urbanized area population; it being understood that said services to be provided shall satisfy requirements for the federally mandated minimum control measures referenced herein. Commitments for participation in said program in future years will require governing body approval on a year-to-year basis.

SECTION 2. To participate financially in accordance with the attached cost allocation plan. Any increases in the costs allocated to the undersigned MS4 due to the failure of other MS4 jurisdictions to participate shall be subject to the approval of the undersigned MS4.

SECTION 3. That all funds received by NWARPC from MS4s shall be utilized in their entirety for stormwater management program services and coordination activities in connection with EPA Phase II Stormwater Program requirements, and shall be accounted for separately from all other Commission funds.

Dated this 12 **day of** FEBRUARY, 2014.

Doug Sprouse MS4 Jurisdiction
Springdale

Jeff Hawkins NWARPC
Jeff Hawkins

Cost Allocation* of U of A Cooperative Extension Service NWA Regional Stormwater Education Program and NWA Regional Planning Commission Stormwater Coordination for NWA MS4 Jurisdictions based on the Urbanized Area Population of the 21 NWA MS4 Jurisdictions in the 2010 US Census

2010 Block Census Data

Jurisdiction	Urbanized Area Population	% Urbanized Area Population	Cost for 2014 NWA Regional Urban Stormwater Education Program
Bella Vista	22,841	7.74%	$16,319.09
Benton County	5,339	1.81%	$3,814.53
Bentonville	33,801	11.45%	$24,149.63
Bethel Heights	2,359	0.80%	$1,685.42
Cave Springs	969	0.33%	$692.32
Centerton	9,135	3.10%	$6,526.64
Elkins	1,991	0.67%	$1,422.50
Elm Springs	973	0.33%	$695.17
Farmington	4,964	1.68%	$3,546.60
Fayetteville	65,457	22.18%	$46,766.73
Greenland	721	0.24%	$515.13
Johnson	3,123	1.06%	$2,231.27
Little Flock	1,742	0.59%	$1,244.60
Lowell	6,574	2.23%	$4,696.89
Pea Ridge	4,298	1.46%	$3,070.77
Prairie Grove	69	0.02%	$49.30
Rogers	54,897	18.60%	$39,221.98
Springdale	68,088	23.07%	$48,646.48
Tontitown	71	0.02%	$50.73
U of A	5,801	1.97%	$4,144.61
Washington County	1,868	0.63%	$1,334.62
Totals	**295,081**	**100.00%**	**$210,825.00**

Note: Budget year runs from January 1 through December 31 of each calendar year

** These dollar breakouts assume all jurisdictions participate.*